



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------|
| 10/585,151 | 10/16/2007 | Martin Brox | 1438.122.101/IF02P045WOUS | 8215 |
| 7590 Dicke, Billig & Czaja Fifth Street Towers, suite 2250 100 South Fifth Street Minneapolis, MN 55402 | | | | |
| EXAMINER | | | | |
| PHAM, EMILY P | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2838 | | | | |
| MAIL DATE | | DELIVERY MODE | | |
| 02/18/2010 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/585,151

Applicant(s)

BROX, MARTIN

Examiner

Emily Pham

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/25/2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the amendment filed on 11/25/2009.

Drawings

2. The drawings were received on 11/25/2009. These drawings are acceptable.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 10-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuda et al (USP 5,861,771).

Regarding independent claim 10: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses a voltage regulation system comprising: an input of the voltage regulating system being presented with a first voltage (**Vcc1**); an output of the voltage regulation system having the first voltage (**Vcc1**) changed into a second voltage (**Vcc2**), which is available to be tapped at the output; a first device (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6**) for generating an essentially constant voltage (**Vref**) from the first voltage (**Vcc1**), or a voltage derived from it (**Vcc1**); and a further device (**7 and 51**) for generating a variable

further voltage (**Vr**) from the first voltage (**Vcc1**) or a voltage derived from it (**Vcc1**), the variable further voltage (**Vr**) tracking the first voltage (**Vcc1**).

Regarding claims 11 and 22: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses the further voltage (**Vr**) generated by the further device (**7 and 51**) can be higher than the voltage generated by the first device (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6; the values of resistors in the bandgap circuit 4 and the resistors of the further device 7 provide output voltage of the bandgap circuit 4 that is lower or higher than the further voltage generated by the further device 7 and 51**).

Regarding claims 12 and 23: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses the further voltage (**Vr**) generated by the further device (**voltage divider 7**) is proportional to the first voltage (**Vcc1**) or the voltage derived from it (**Vcc1**).

Regarding claims 13 and 24: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses the further device (**7 and 51**) comprises a voltage divider circuit (**voltage divider 7 with R1 and R2**).

Regarding claim 14: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses the voltage (**Vref**) generated by the first device (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6**) or a voltage derived from it, and the further voltage (**Vr**) generated by the further device (**voltage divider 7**), or a voltage derived from it, can be used for controlling a voltage regulation circuit device (**as reference voltage to amplifier 51 that control switch 61 to regulate output voltage of the voltage regulation circuit device**).

Regarding claim 15: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses the voltage (**Vref**) generated by the first device (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6**) or a voltage derived from it, and the further voltage (**Vr**) generated by the further device (**7 and 51**), or a voltage derived from it, can be used as a reference voltage for the voltage regulation circuit device (**as reference voltage to amplifier 51 that control switch 61 to regulate output voltage of the voltage regulation circuit device**).

Regarding claim 16: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses a device (**R3, R4**) for activating and/or deactivating the further device (**7 and 51**) to an activated and/or deactivated state (**activate/deactivate output circuit 6**).

Regarding claim 17: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses in the activated state of the further device (**7 and 51**), the height of the level of the reference voltage used for the voltage regulation circuit device is determined by whichever of the voltages generated by the first (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6**) and further device (**7 and 51**), or the voltages derived from them, exhibits the higher level (**whichever Vf or Vref exhibits the higher level**).

Regarding claim 18: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses in the deactivated state of the further device (**7 and 51**), the height of the level of the reference voltage used for the voltage regulation system circuit device is determined by the voltage generated by the first device (**the reference voltage**

generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6) or the voltage derived from it (**whichever V_f or V_{ref} exhibits the higher level**).

Regarding claims 19-20: Matsuda et al (**FIG 3**) discloses the apparatus at its normal operation performing the steps of method disclosed in claims 19-20.

Finally, under the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. See MPEP 2112.02. Therefore, the previous rejections based upon the apparatus will not be repeated.

Regarding independent claim 21: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses a voltage regulation system comprising: an input having a first voltage (**V_{cc1}**); an output having a second voltage (**V_{cc2}**); a first device (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6**) for generating an essentially constant voltage (**V_{ref}**) from the first voltage (**V_{cc1}**); and means (**7 and 51**) for generating a variable further voltage (**V_r**) from the first voltage (**V_{cc1}**) that tracks the first voltage (**V_{cc1}**).

Regarding claim 25: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses the voltage (**V_{ref}**) generated by the first device (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6**)

and the further voltage generated can be used for controlling a voltage regulation circuit device.

Regarding claim 26: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses the voltage generated by the first device (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6**) and the further voltage generated can be used as a reference voltage (**V_r, V_{ref}**) for the voltage regulation circuit device.

Regarding claim 27: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses a further device (**output circuit 6**) for generating the further voltage (**Voltage between switch 61, switch 62, and ground**) from the first voltage (**V_{cc1}**) and further comprising a device (**R3, R4**) for activating and/or deactivating the further device to an activated and/or deactivated state (**V_c activates/deactivates switch 61**).

Regarding claim 28: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses in the activated state of the further device (**output circuit 6**), the height of the level of the reference voltage (**Voltage between switch 61, switch 62, and ground**) used for the voltage regulation circuit device is determined by whichever of the voltages generated by the first (**the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6**) and further (**output circuit 6**) device exhibits the higher level (**51 decides higher level to activate switch 61**).

Regarding claim 29: Matsuda et al (**For example: see FIG 4, FIG 7, and FIG 9**) discloses in the deactivated state of the further device, the height of the level of the reference voltage (**Voltage between switch 61, switch 62, and ground**) used for the

voltage regulation system circuit device is determined by the voltage generated by the first device **(the reference voltage generating circuit 4 formed by band gap reference circuit; lines 21-32 of col. 6)** or the voltage derived from it.

Response to Arguments

5. Applicant's arguments with respect to claims 10, 19, and 21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Pham whose telephone number is (571)270-3046. The examiner can normally be reached on Mon-Thu (7:00AM - 6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Lewis can be reached on (571) 272 - 1838. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 8, 2010
/Monica Lewis/
Supervisory Patent Examiner, Art Unit 2838

EP